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DEPARTMENT: ELECTRICAL AND ELECTRONICS ENGINEERING
OPTION: ELECTRICAL TECHNOLOGY
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Semester I LEVEL: III

Stream A

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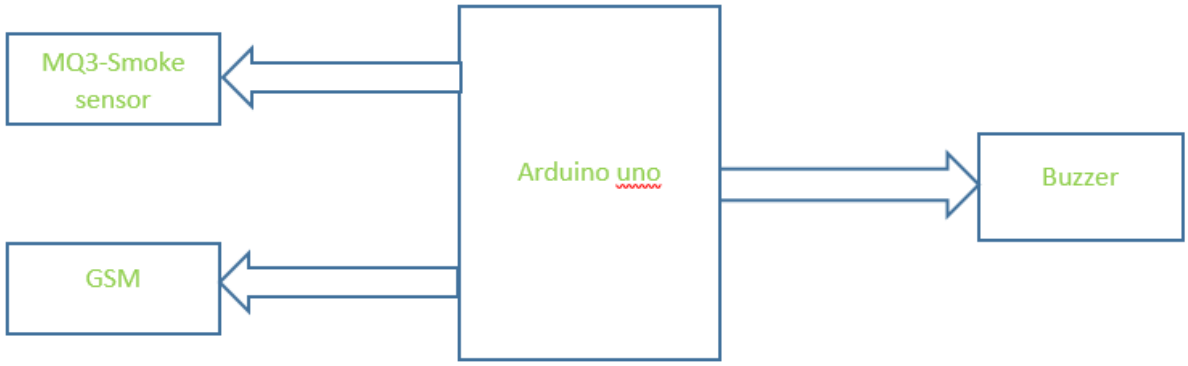
Module Name: Programmable ICs
Module Code: ELT312
Project Name: TURNING ON A BUZZER USING MQ3 SMOKE SENSOR, GIVE NOTIFICATION THROUGH GSM

Abstract: Turning on buzzer using mq3 smoke sensor and give notification to GSM it has the primary goal to keep residents and their belonging safe from smoke or any kind of gases. This system is used to detecting smoke/gases it needs Arduino Uno, gsm module, mq3 smoke sensor and buzzer but when the mq3smoke sensor detects the smoke or any kind of gases it sends the signal to Arduino uno to make the buzzer giving the

alarm and the Arduino uno receives the signal to send the sms to the telephone number of the users

Problem statements: the problem of smoke or any kind gases this system of turning on buzzer by mq3 smoke sensor, and notification to gsm will alarming whenever there is a threat of fire in our property ,allowing to call the fire department and ensure everyone get out safely when there is a smoke/gases .so it decreases risks of fire damage.

Block diagram:



Description: This system of turning ON buzzer with MQ-3 smoke sensor, notification to GSM consist of the following components such as: Arduino uno board, GSM(SIM900), buzzer and MQ-3 smoke sensor. after to construct source code and connecting the circuit according to the pins used in the source code and then we supply our circuit, when the smoke is detected with MQ-3 smoke sensor this sensor must be high and the buzzer must be high and the GSM will be high to send the notification on the telephone number used (+250780493923).

Source code:

```
#include <SoftwareSerial.h>
SoftwareSerial SIM900(2, 3);
String textForSMS;

int mq3sensor = 9;
int buzzer = 11;

void setup() {
  randomSeed(analogRead(0));
  Serial.begin(9600);
  SIM900.begin(9600);
  Serial.println(" logging time completed!");
  pinMode(mq3sensor, INPUT);
  pinMode(buzzer, OUTPUT);
  digitalWrite(buzzer, LOW);

  delay(100);

}

void loop() {


  if ( digitalRead(mq3sensor) == HIGH) //
  {
    textForSMS =  "\smoke/gas detected ";
```

```
   digitalWrite(buzzer, HIGH);
   sendSMS(textForSMS);
   Serial.println(textForSMS);
   Serial.println("message sent.");
   delay(2000);
  }
  if ( digitalRead(mq3sensor) == LOW) //
  {
   digitalWrite(buzzer, LOW);
   delay(1000);
  }

}

void sendSMS(String message)
{
  SIM900.print("AT+CMGF=1\r");
  delay(1000);
  SIM900.println("AT + CMGS = \"+250780493923\"");

  delay(1000);
  SIM900.println(message);

  SIM900.println((char)26);
  delay(1000);
  SIM900.println();
  // give module time to send SMS
```

}

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